

Serial No.: 09/472,534  
Group Art Unit: 2666  
Examiner: Melanie Jagannathan

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REMARKS

Claims 1 through 15 remain in this application. Claim 1 has been amended. It is requested that the application be reconsidered and allowed in view of the amendment and the following comments.

Independent Claim 1 and dependent claims 6 through 10

Independent claim 1 requires receiving an inbound working channel and an inbound protection channel at an input interface; determining a signal quality of the inbound working and protection channels; selecting one of the inbound working and protection channels in response to the signal quality of the inbound working and protection channels at the input interface; and providing the selected one of the inbound working and protection channels to a switching matrix in the cross connect switch, wherein the switching matrix outputs the selected one of the inbound working and protection channels over a pre-determined matrix connection, the switching matrix maintaining matrix connections regardless of which one of the inbound working and protection channels is selected. As stated in the specification at page 9, lines 3 through 7, the present invention provide for protection switching in the input and output interfaces of a cross-connect switch to avoid disruption of matrix connections in the switching matrix of the cross-connect switch.

The Office Action rejected claim 1 under 35 U.S.C. 102(e) as being unpatentable over U.S. Patent No. 5,870,382 to Tounai et al. (the "Tounai" reference). The Tounai reference fails to disclose the requirement of claim 1, *inter alia*, of "providing the selected one of the inbound working and protection channels to a switching matrix in the cross connect switch, wherein the switching matrix outputs the selected one of the inbound working and protection channels over a pre-determined matrix connection, the switching matrix maintaining matrix connections regardless of which one of the inbound working and protection channels is selected." The Tounai reference is an ATM permanent bridge for terminating lines, as described at column 3, line 38 and column 4, lines 3 through 5. The Tounai reference does not illustrate a cross connect

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switch with an input interface and a switching matrix. On page 3, first paragraph, the Office Action cites Element 4 and column 3, lines 34 through 36 as showing the step of providing the selected one of inbound working and protection channels to a switching matrix. However, element 4 is not a switching matrix. It is only a "switch for selecting the W-line or the P-line at their reception sites," as stated in the Tounai reference. Since element 4 is doing the selecting, it necessarily can't be provided with the selected one of the inbound working and protection channels! Furthermore, since it is obviously changing the connection between the W-line and P-line, element 4 is not "maintaining matrix connections regardless of which one of the inbound working and protection channels is selected," as required by the claims.

Dependent Claims 4 and 5

Dependent Claims 4 and 5 were rejected under 35 U.S.C. 103(A) as being unpatentable over the Tounai reference in view of U.S. Patent No. 6,201,788 to Ishiwatari (the Ishiwatari reference).

The Tounai reference fails to disclose the requirements of claim 4 of "switching inbound protection channel to the outbound working channel, switching of the inbound working and protection channels preventing information from being provided to the switching matrix." As seen in Figure 1 of the Tounai reference, the inbound protection P-line 2B is not provided to outbound working W-line 1A.

The Ishiwatari reference also fails to disclose the requirements of claim 4 of "switching inbound protection channel to the outbound working channel, switching of the inbound working and protection channels preventing information from being provided to the switching matrix." The Ishiwatari reference merely describes the general method of bi-directional line switched rings at column 4, lines 6 through 37. As described in the specification at page 2, lines 5 through 7, in the prior art, the protection switch is performed by cutting another connection through the matrix of the cross-connect switch. The Ishiwatari reference nowhere describes how the loop-back formation is implemented. Thus, there is no suggestion that the Ishiwatari reference is performing any other type of switching than that known in the prior art. Furthermore, the

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problem solved by the present invention that cross-connection algorithms generally take more time to complete is not disclosed. With no suggestion of the problem, there is no suggestion to combine the Tounai reference or to modify the Ishiwatari reference to meet the requirements of the claims. Furthermore, since the Tounai reference does show the inbound protection P-line 2B as being provided to outbound working W-line 1A, a combination of the two references would be inoperable in a BLSR configuration!

Independent Claim 11 and dependent claims 12 through 15

The Office Action rejected claims 11, 12, 14, 15 under 35 U.S.C. 103(A) as being unpatentable over the Tounai reference in view of U.S. Patent No. 6,201,788 to Ishiwatari (the Ishiwatari reference). However, the Tounai reference and the Ishiwatari reference, either alone or in combination, fail to disclose the requirements of the claims.

As explained above, the Tounai reference fails to disclose, "a switching matrix operable to receive a selected one of the inbound working and protection channels, the switching matrix operable to output the selected one of the inbound working and protection channels over a pre-determined matrix connection, the switching matrix maintaining matrix connections regardless of which one of the inbound working and protection channels is selected," as required by claim 11. The Tounai reference is only a "switch for selecting the W-line or the P-line at their reception sites," as stated in the Tounai reference. Since element 4 is doing the selecting, it necessarily can't be provided with the selected one of the inbound working and protection channels! In addition, element 4 is changing the connection between the W-line and P-line, and so can not be "maintaining matrix connections regardless of which one of the inbound working and protection channels is selected," as required by the claims.

The Ishiwatari reference also fails to disclose the requirement of claim 11 of "a switching matrix operable to receive a selected one of the inbound working and protection channels, the switching matrix operable to output the selected one of the inbound working and protection channels over a pre-determined matrix connection, the switching matrix maintaining matrix

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connections regardless of which one of the inbound working and protection channels is selected." In addition, the Ishiwatari reference lacks disclosure of the requirements of claims 12, 14 and 15. As described above with respect to claims 4 and 5, the Ishiwatari reference merely describes the general method of bi-directional line switched rings at column 4, lines 6 through 37. As described in the specification at page 2, lines 5 through 7, in the prior art, the protection switch is performed by cutting another connection through the matrix of the cross-connect switch. The Ishiwatari reference nowhere describes how the loop-back formation is implemented. Thus, there is no suggestion that the Ishiwatari reference is performing any other type of switching than that known in the prior art, i.e. by cutting another connection through the matrix of the cross-connect switch. Furthermore, the problem solved by the present invention that cross-connection algorithms generally take more time to complete is not disclosed. With no suggestion of the problem, there is no suggestion to combine the Tounai reference or to modify the Ishiwatari reference to meet the requirements of the claims. Even if combined, the Tounai reference nowhere discloses that the switching matrix maintains matrix connections regardless of which one of the inbound working and protection channels is selected.

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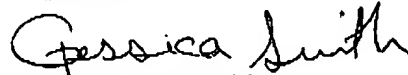
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Conclusion

For the above reasons, the foregoing amendment places the application in condition for allowance. Therefore, it is respectfully requested that the rejection of the claims be withdrawn and full allowance granted. Should the Examiner have any further comments or suggestions, please contact Jessica Smith at (972) 477-9109.

Respectfully submitted,

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